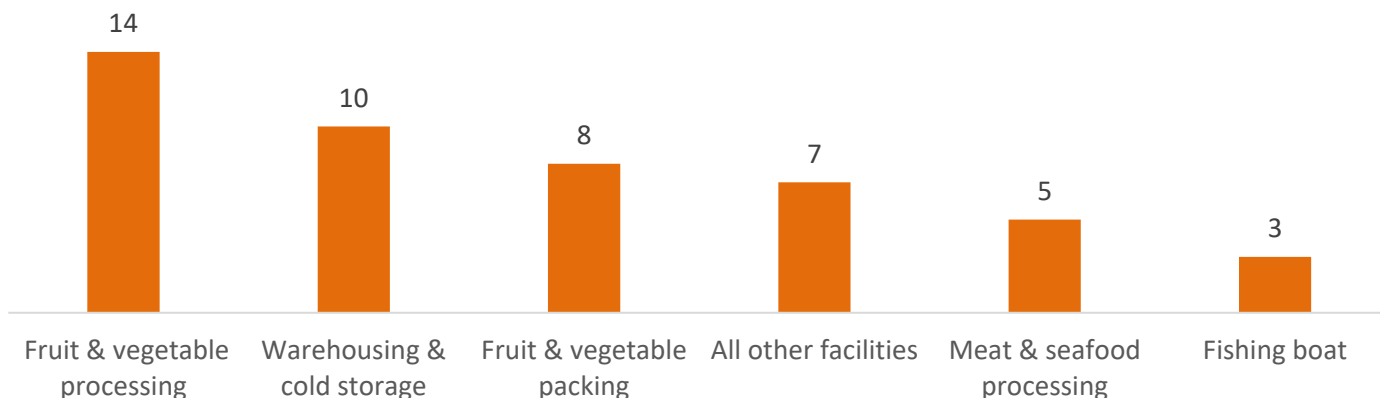


Agriculture and food processing leads ammonia exposure across all industries

Washington State Workers' Compensation Data, 2017–2022

Ammonia Exposure Events by Facility Type



SHARP's toxic inhalation surveillance system¹ identified 62 workers in 47 events with inhalation exposure to ammonia between 2017 and 2022.

- Anhydrous ammonia is a high-hazard, common industrial refrigerant that is corrosive to the skin, eyes and lungs. Liquid anhydrous ammonia can be stored in large tanks and transported in pressurized pipes. Spills and line breaks can result in inhalation injuries and facility evacuations.
- Most exposed workers (84%) worked near refrigeration systems and were indirectly exposed to leaked ammonia. Of the ten workers *directly* exposed, five were maintenance or repair workers. Three facilities had multiple exposure events between 2017 and 2022. One refrigerant leak event resulted in a facility evacuation and eleven claims.
- The industries with the greatest number of ammonia exposure events per business location were 'Dried and Dehydrated Food Manufacturing' (NAICS 311423, 15 events per 100 locations) and 'Frozen Fruit, Juice, and Vegetable Manufacturing' (NAICS 311411, 9 events per 100 locations).
- Altogether, forty-seven agricultural and food processing workers were exposed. Fruit and vegetable packing and processing facilities had 34 events total; nine occurred in potato processing facilities, and eight in apple processing facilities. Agricultural counties in Eastern Washington saw the greatest number of cases: Yakima (20), Franklin (7) and Grant (5).
- Three ammonia exposure events occurred on RVs and three events occurred on fishing boats.
- The source of the exposure was not specified in a third of cases. The most common named sources were refrigerators or other machinery (14 cases), pipe leaks (7), and liquid spills (6).

1. [SHARP's Toxic Inhalation Surveillance Program](#), technical report # [64-30-2021](#) (29 pp.) and appendix tables report # [64-32-2021](#) (50 pp.) include toxic inhalation exposure information by industry, occupation and potential health effect. Inhalation surveillance does not include ammonia-related injuries from skin contact, fire and explosion.

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